

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

TO THE

BRAMPTON AND WALTON URBAN
DISTRICT COUNCIL,

FOR THE

YEAR 1899.

CHESTERFIELD :

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ANNUAL REPORT
BY THE
MEDICAL OFFICER OF HEALTH
OF THE
**BRAMPTON AND WALTON URBAN
DISTRICT COUNCIL,**
FOR THE YEAR 1899.

GENTLEMEN,

I have the honour to present my Eighth Annual Report on the health of your District. In a few respects it is not quite so satisfactory as some that have preceded it. The death-rate, although somewhat higher than the previous year, is still very low; but the Infantile Mortality has been unusually high.

Population.

As you are aware, the population of your District is somewhat a matter of conjecture, owing to the fact that Chesterfield has absorbed a considerable portion of your area since the last census was taken. A number of houses have been erected during the year: on the other hand, a few cottages in some of the outlying parts have been unoccupied. The excess of births over deaths numbers 49. I have, however, in making the calculations, retained

the same figure, namely 2700, as the estimate of our population.

Births and Deaths.

The birth rate is highly satisfactory. It is the largest we have had for five years. There were 80 children—43 boys and 37 girls—born during the year. This gives an annual birth-rate of 29·6 per thousand. The figures for the preceding year were 63 births, equal to a birth-rate of 23·3.

The deaths recorded numbered 31—16 males and 15 females—equivalent to a death rate of 11·4, compared with 28 deaths and a death rate of 10·3 in 1898. No fewer than 8 of the deaths were uncertified by a doctor, and in 3 cases inquests were held. One of the deaths should be credited to Chesterfield. It was the case of a man who was killed in Walton Parish, but who resided in the Borough. A glance at the table of ages will show that the two extremities of life contribute by far the greater number of deaths. Eleven of them occurred under the age of one year, and the same number at or over the age of 70 years, leaving only nine at intermediate ages. We had only 2 deaths from Phthisis against 5 in the previous year.

The following summary gives a rough classification of the causes of death. The usual detailed table will be found at the end of the Report.

ZYMOTIC OR SPECIFIC FEBRILE DISEASES :

Measles ...	...	...	...	1
Scarlet Fever	...	...	...	1
Chicken Pox	...	...	...	1
Erysipelas	...	...	...	1
Diarrhoea	...	...	...	2

CONSTITUTIONAL DISEASES :

Phthisis ...	...	...	...	2
Cancer ...	...	...	...	1

LOCAL DISEASES :

Alimentary	...	...	...	4
Respiratory	...	...	...	3
Circulatory	...	...	...	2
Nervous ...	...	...	...	5
Urinary ...	...	...	...	1

DEVELOPMENTAL DISEASES :

Premature Birth	...	...	...	1
Old Age ...	...	...	...	3
VIOLENCE ...	...	...	...	3

Infantile Mortality.

The most unsatisfactory feature in my Report is the comparatively high rate of infantile mortality. In the two preceding years the rate was remarkably low, but for 1899 the figure is larger than it has been since 1893. Eleven children died under the age of one year, which is equal to an infantile mortality rate of 137 per thousand births. The causes of these deaths were as follows :—

Premature Birth ...	...	...	...	1
Convulsions	...	...	...	3
Acute Meningitis ...	...	...	...	1
Diarrhœa...	...	...	...	2
Erysipelas ...	...	...	...	1
Suffocation	...	...	...	1
Chicken Pox (with bronchitis) ...	...	...	...	1

The usual epidemic of summer diarrhœa, which accounts for a large number of the infantile deaths in the Borough, usually affects our district very slightly. In 1899, however, we had rather more of these cases than usual, and it will be

noticed that 2 deaths were occasioned by this complaint.

The following table gives a comparison of the vital statistics for the past seven years :—

Year.	Birth-rate.	Death-rate.	Infantile Mortality per 1000 Births.	Zymotic Death-rate.
1893	31.5	15.0	200	1.1
1894	27.2	12.2	130	1.5
1895	26.8	12.6	102	1.1
1896	26.2	13.7	126	1.4
1897	25.5	11.1	43	1.1
1898	23.3	10.3	63	.37
1899	29.6	11.4	137	1.4

Infectious Disease.

We have had no epidemics during the year, but a few cases of infectious diseases have been notified. Altogether nine cases of Scarlatina were reported. Of these, 3 occurred in the Industrial Schools, where, it will be remembered, there was a considerable outbreak the year before. The remaining 6 cases were distributed as follows :—

Ashgate	...	...	...	...	...	3
Walton	...	...	...	...	...	2
Boythorpe Lane	...	...	...	...	...	1

In each case visits were made to the houses, and where sanitary defects were found to exist these were remedied. Disinfectants were supplied, and the rooms were afterwards fumigated by sulphur. In the case of Ashgate House the per-chloride spray was used, and the bedding was disinfected by the steam disinfecter at Chesterfield. I think it would be a good plan to make use of the

Chesterfield appliances for disinfecting purposes. I have no doubt some arrangement could be made with the Chesterfield Health Committee.

Four cases of Erysipelas were reported, and one death is attributed to this complaint. A few cases of Measles occurred, with one death, and in November there was a slight outbreak of Chicken-pox at Cutthorpe. We have had no cases of Diphtheria or Typhoid Fever. The Zymotic death rate is 1·4 per thousand.

Isolation Hospital.

The scheme for the provision of accommodation for infectious cases seems to develop very slowly. As you are aware, the North Derbyshire Hospital Committee joined with the Borough Authorities for the erection of a Central Hospital at Hasland. I understand this partnership is about to be dissolved or modified.

Sewerage Works.

Progress has been made during the year with the scheme for the Sewage treatment at Holymoorside. At the date of my last Annual Report one coal filter had been constructed, and it worked fairly well for a time. I then pointed out what additions and modifications were, in my opinion, required to make the plan a success. As might have been expected, the coal filter, which was worked simply as a mechanical strainer, and not on biological principles, soon became inefficient, with the result that the sewage flooded the surface, and often overflowed directly into the river. The idea underlying these filters is not that of a mechanical

strainer to remove the suspended matter, but that of a living sponge, where minute organisms cover each particle of coal or whatever substance may be used, and by their action in the liquid organic matter convert it into harmless products. Now, to effect this end the admission of air is necessary. It will be seen, therefore, that to have the surface covered with water, or to have the body of the filter constantly saturated with sewage, effectually prevents the entrance of air, and so interferes with the proper working of the process. During the year another filter has been prepared, but this time it has been filled with selected engine ashes instead of crushed coal. We have now two filters at work—the old one, which measures 180 square yards, and the new one, which has an area of about 160 square yards. As each square yard can deal with about 200 gallons of sewage per day, and as the total daily amount of our sewage is only about 16,000 gallons, it will be seen that we have ample filtering area, even when the beds are used alternately. The ridges have been removed from the old clay bed nearest to the village, and this space, which has an area of 396 square yards, is used to receive the sewage. It here deposits some of its solid matter before passing on to the filters. The purified sewage is made to flow in the trenches in the old filtering bed furthest from the village, where it is exposed to the action of air and light, before it is finally passed into the river. I have on several occasions examined the effluent. Up to the present time it is fairly satisfactory, but unless we alter our method of working the filters, I fear the result will, after a time, be dis-

appointing. The mistake is in supplying the sewage to the filters continuously instead of intermittently. At the Chesterfield experimental filter, which is working in a very satisfactory manner, the intermittent supply is obtained by the use of a Shone's Ejector, and the equal distribution is effected by impinging the ejected sewage on horizontal plates. Of course, this plan is out of the question at our works, as the expense would be prohibitive, but the same end might be obtained by using automatic tipplers. Unfortunately there is not much fall, but I think the difficulties could be overcome. Dr. Barwise, in his Annual Report, complains that no ventilators have been put in. It is a pity, if they are of such importance, that they were not mentioned in his Special Report on Sewage Purification, as your Surveyor roughly followed the directions there given when he had the filter prepared. Of course, the true test of the success of our plan is the character of the effluent we pass into the river. Until that is thoroughly satisfactory our efforts must be continued. It is gratifying to notice the improved appearance of the river, but this is due not to our Sewage Works, but to the new process of dyeing adopted by the English Sewing Cotton Co. I have heard nothing more about dead fish being seen in the stream.

In my report for 1896 I drew your attention to the very foul smell from the sewer openings in the road at Cutthorpe. During last summer this nuisance was worse than ever and I received many complaints on the subject. The sewer is, as you know, defectively laid, with the result that deposit

accumulates in it, and gives off offensive gases. Of course the radical cure would be to have the drain properly relaid. Your Surveyor had the sludge removed and the nuisance was abated for the time, but this may have to be periodically done or the same thing will happen again. It might be advisable to have the street gratings closed and ventilating shafts erected in their stead.

Water Supply.

In my report last year I stated that the Water problem at Walton had at length been solved by the Chesterfield Gas and Water Board agreeing to give a supply to that portion of your District. During the summer a water main was laid extending from the spring at Slate-pit Dale to the Blue Stoops. Some delay occurred owing to the difficulty in obtaining suitable ground for the construction of a small reservoir. A further difficulty was caused by a claim for compensation from Mr. Jeudwine, on behalf of his landlady. The water from the spring, after it leaves the road, ultimately goes to feed a pond on Mr. Jeudwine's grounds, and it was in respect of this that compensation was claimed. It can hardly be matter for wonder that the claim was resented. It must be apparent to anyone that the Water Board has undertaken the supply of Walton more from an appreciation of the needs of the District, and a sense of their responsibility in the matter, than from any mercenary hope of a profitable return on the capital expended. In these circumstances it seemed ungrateful that at the last moment difficulties of this kind should be raised. I understand,

however, that the claim has now been withdrawn, and it is to be hoped that Walton will have an adequate water supply before the summer.

In my report last year I called your attention to the dangerous condition of some wells at Old Brampton; but, beyond interdicting their use, I regret no action has been taken to secure a purer supply. I still think the Chesterfield Water Board might be induced to undertake the supply here, and possibly in other parts of the District as well.

Three years ago, by giving our surplus water at Holymoorside, we might have made advantageous terms for the supply of the whole District. The recent Derwent Water Act has now made Chesterfield independent of any help we can offer. However, the Water Board, unlike the Company which preceded it, has shown its readiness, as in the case of Walton, to do what is fair and reasonable. Should this plan fail, then a Public pump should be erected on ground well above the level of the Church-yard.

During the year the Water Supply at Wadshelf has been much improved. Your surveyor has had the spring in Bradshaw Lane built round with brick and cement. Two inspection chambers have been placed at intervals, through which the pipes can be kept clean. Several thousand gallons can be stored should occasion require.

The general health of the District has been good. Towards the end of the year Influenza appeared in epidemic form and the number of cases continued to increase during January. The sanitary

condition of your District may be considered fairly satisfactory.

I append the usual summary of the work done by your Inspector of Nuisances. I think more frequent visits might be paid to the slaughter-houses with advantage. Such visits would tend to keep the sanitary condition of these places up to the mark, and at the same time an opportunity could be taken to inspect the condition of the animals about to be slaughtered. Such inspection, I have reason to believe, is much needed at one of these places.

I am,

Gentlemen,

Your obedient servant,

JAMES A. GOODFELLOW.

21ST FEBRUARY, 1900.

Table of POPULATION, BIRTHS, and of NEW CASES OF INFECTIOUS SICKNESS, coming to the knowledge of the Medical Officer of Health, during the year 1899, in the BRAMPTON and WALTON Urban District, classified according to Diseases, Ages and Localities.

State here whether "Notification of Infectious Diseases" is compulsory in the District. Yes. Since when? 1st February, 1894.

TABLE OF DEATHS during the Year 1899, in the BRAMPTON and WALTON Urban District, classified according to Diseases, Ages, and Localities.

Area in Acres . . . 9,852.

Population, 1891: :: 2,532.

Medical Officer of Health, JAMES A. GOODFELLOW.

Estimated, 1899 :: :: 2,700.

Dated, 21st February, 1900.

Summary of Sanitary Work done in the Inspector of Nuisances' Department during the Year 1899 in the Derbyshire portion of the Urban Sanitary District of Brampton and Walton.

		Complete record of Inspections and Informal Notices not kept.	Inspections and Observations made.	Informal Notices served by Inspector.	Legal Notices by Authority.	Nuisances Abated after Notice.
DWELLING-HOUSES AND SCHOOLS—						
Foul Conditions				
Structural Defects				
Overcrowding				
Unfit for Habitation						
Lodging Houses				
Dairies and Milkshops				
Cow Sheds				
Bakehouses				
Slaughter-houses (complete list of inspections not kept)						
Canal Boats				
Ashpits and Privies				
Deposits of Refuse and Manure						
Water Closets				
HOUSE DRAINAGE—						
Defective Traps				
No Disconnection				
Other Faults...				
Water Supply				
Pigsties				
Animals improperly kept						
Offensive Trades				
Smoke Nuisances				
Other Nuisances				
TOTALS...	...			9	12	20

PRECAUTIONS AGAINST INFECTIOUS DISEASES.

Houses disinfected after Infectious Diseases... 4
 Method of Disinfection adopted ... Fumigation by Sulphur

